



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In application of

: Attn: APPLICATION BRANCH

Junichi IKEDA

: Docket No. 2003_1058A

Serial No. NEW 10629584

:

Filed July 30, 2003

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EJECTOR FOR USE WITH PNUMATIC BOOSTER

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
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ACCOUNT NO. 23-0975

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449. A legible copy of each reference listed on the form PTO-1449 is enclosed.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:

a. ☐ a full or partial English language translation submitted herewith,

b. ☐ a foreign patent office search report (in the English language) submitted herewith,

- c. ☐ the concise explanation contained in the specification of the present application at page,
- d. ☐ the concise explanation set forth in the attached English language abstract,
- e. ☒ the concise explanation for references AJ and AK set forth below:

Japanese Patent Application Publication No. 2002-211385

This Publication was published on July 31, 2002. It discloses (on page 5, in paragraph [0038], for example) that the divergence angle θ in the diffuser 64 of the combination of the nozzle 63 and the diffuser (Fig. 11) is selected from a range of 5-10 degrees in case of a two dimensional nozzle (having a rectangular cross section) and from a range of 3-6 degrees in case of a three dimensional nozzle (having a circular cross section).

It also discloses (on page 6, in paragraph [0044]) that a test for determining where a shock wave is created, result of which is shown in Fig. 12, was effected with two dimensional nozzles having a throat with the width in the range of 0.5mm to 1.0mm and the height in the range of 2-4 times the width and a divergence angle θ in the range of 5-10 degrees.

It also discloses (on page 6, in column [0045]) that a test for determining the relationship between an operational vacuum and an attained vacuum, as shown in Fig. 13, was effected with two dimensional nozzles having a throat with a width of 0.6mm and a height of 2.0mm and a divergence angle θ of 7.5 degrees, wherein suction ports are disposed in an area which is within a range of distance of 0.8mm to 2.0mm from the throat.

However, ideas about the configuration of the combination of the nozzle and the diffuser, including the foregoing ones were made by Junichi Ikeda, who is one of the co-inventors of the Japanese application disclosed in this document and the sole inventor of the subject U.S. Patent application.

Japanese Patent Application Publication No. 2003-21100

This Publication was published on January 24, 2003. It discloses (on page 3, in paragraph [0013]) that the divergence angle θ in the diffuser 6 of the combination of the nozzle 5 and the diffuser (Fig. 1) is selected from a range of 5-10 degrees in the case of a two dimensional nozzle (having a rectangular cross section) and from a range of 3-6 degrees in the case of a three dimensional nozzle (having a circular cross section).

It also discloses (on page 3, in paragraph [0015]) that the inlet portion of the diffuser 6 is enlarged by an amount δ so as to have parallel side walls in the case of a two dimensional nozzle or a straight tubular portion in the case of a three dimensional nozzle.

However, ideas about the configuration of the combination of the nozzle and the diffuser, including the foregoing ones were made by Junichi Ikeda, who is one of the co-inventors of the

Japanese application disclosed in this document and the sole inventor of the subject U.S. Patent application.

5. ☐ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Junichi IKEDA

By 

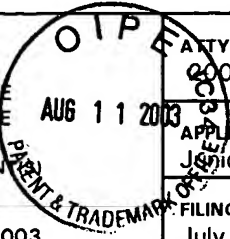
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August 11, 2003

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT
(Use several sheets if necessary)

Date Submitted to PTO: August 11, 2003

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2003_1058ASERIAL NO.
NEWAPPLICANT
Jenichi IKEDAFILING DATE
July 30, 2003

GROUP

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AC						
	AH						
	AI						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AJ	2002-211385	7/2002	JP			
	AK	2003-21100	1/2003	JP			
	AL						
	AM						
	AN						

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AO	
	AP	
	AQ	

EXAMINER

DATE CONSIDERED